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ABSTRACT

The major objectives of this project were to assist selected vocational educators to develop instructional materials based upon the behavioral objectives of each course, to individualize instruction and develop resource materials to guide other educators. To accomplish these objectives, four workshops were conducted for technical/vocational educators. Summaries are provided of the participants' evaluation of the workshops. General comments of the educators indicated an appreciation for the opportunity to learn about and develop individualized instructional packages. (Appendixes provide the Planning Letter, Criteria for Selection of Participants, Lists of Participants, Evaluation Questionnaires, and Statistical Data.) (DB)

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ED 091012

AMERICAN RIVER COLLEGE

FINAL REPORT

Title: How to Individualize Instruction Through Program Development

Project No. 34-67371-EF 054-72

OE Project No. OEG - 0-70-1955 (725)

Project Director: Louis Heinrich

JC 740 141

June 30, 1972

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HOW TO INDIVIDUALIZE INSTRUCTION THROUGH PROGRAM DEVELOPMENT

I Planning

After a visit to Purdue University, observing Dr. Postlethwait's audio-tutorial program and interviewing his students, his aides and Dr. Postlethwait, it became apparent that his methods offered possibilities of improving the classroom situation. Additional visits to other schools and participation in workshops increased the desire to bring about changes in the methods of instruction that were presently being employed.

Most recent writers are in agreement that over ninety per cent of students can master what we have to teach them. Our basic task in education is to determine what methods and materials will enable the largest proportion of our students to attain mastery of the subject under consideration.

The purpose of the workshop was to assist instructors in the development of tools or methods by which they can improve and individualize their instruction. Special attention was given to the recognition of some of the problems in education, the matching of materials to each student's ability and previous experience, and to individualize instruction to permit a student to complete course objectives at his own pace within some broad time limits.

Representatives of high schools, colleges, and county consultants participated in the planning sessions.

In preliminary meetings basic topics or areas that the planning group felt should be covered in the Workshop were listed, based primarily on the experiences of Louis Heinrich, Director, and George Moore, Instructional Assistant. Once the topics to be covered were selected, it was decided to approach nationally known people of whom the Director and Instructional Assistant had personal knowledge or contact with. These people were not

only to be nationally known in their field of expertise but also to be able to make excellent large group presentations, due to the format of Friday evening lectures and Saturday small group workshops. The Workshop was to be started by Dr. Rita Johnson. Dr. Johnson has led numerous workshops of varying length throughout the United States on programmed instruction. Mr. William Furniss, Director of Golden West College's Telecommunication Center, led our second week of work on the theme of "Media Utilization." The third week was built around Mr. Robert Samples from the Environmental Studies Project, Boulder, Colorado, who discussed "Change for Education." The final week was planned around Dr. Robert Hurst from Purdue, where audio-tutorial got its real start.

The Saturday sessions of the Workshop were designed primarily as work and consulting days. The participants were broken down into small subject matter groups of 8 to 12 people, and a person knowledgeable in writing programs and behavioral objectives was placed in charge of each group to work individually with the group members. These groups were structured so that participants had maximum amount of freedom. This, we felt, was consistent with the Workshop's objective of individualizing instruction. The Group Consultants were, in the main, people who for two summers (1970 and 1971) participated in a National Science Foundation program at University of California, Irvine and Golden West College on Systems Approach to Teaching Biology, where individualized instructional programs were developed for Community Colleges.

On the second and third Saturday meetings Specialty Consultants in media utilization and preparation were made available to Workshop participants. Mr. Bill Race of Race Recording Studio spoke on tape recorders and taping techniques, Mr. John Bucknell of Sacramento City College aided with video

taping, Mr. Don Goff of Sacramento City College worked in the area of graphic arts, and Mr. Bill Papke of American River College on photography and photographic techniques. These Specialty Consultants then provided the participants with some minimal background on media - how it can be used - and offered individualized help on actual incorporation into the participant's own personal packets.

All three campuses of the Los Rios College District were used to house the Workshop for two basic reasons: (1) as most participants live in the Los Rios College District and are educators, they would become familiar with the facilities of each campus within the District, and (2) the District, as well as the individual campus participated financially from community service funds. Therefore, a major talk and/or weekend on each campus made knowledge about individualized instruction available to that given area or portion of the community.

The participants were charged with the following eight objectives to be completed by December 15, 1972.

1. Develop an analysis of the content of the unit(s) chosen for study.
   a. One medium length unit (20. min.) or
   b. Two short units (5 to 10 min.).
2. Identify the behavioral objectives for the unit.
3. Select the techniques and media to be adopted to provide the best learning situation for the students in order to accomplish the behavioral objectives.
4. Produce the media to be used as instructional tools for the unit(s).
5. Define mastery concept for the unit(s) by developing pre and post testing materials to measure the competency level achieved by

each student.

6. Have unit(s) completed, and typed copy handed in to Group Consultant or Project Director in order for all of the units that are completed by Workshop participants to be reproduced and copies sent to participating school and participant.
7. Test unit produced in the classroom, and send evaluation of unit to Project Director by December 15, 1972.
8. Participants are to accept leadership roll in own school in assisting other staff members to develop individualized instructional materials.

II Participant Selection

The Workshop was designed for one hundred technical-vocational instructors from Northern California. Sixty-seven individuals made application for the Workshop. Of these, 65 attended the Workshop and 56 produced the required materials. There were also twenty-eight observers from academic areas who showed interest in the presentations and materials demonstrated and produced by the Workshop. See Appendix B.

The criteria for the selection of participants in the Workshop was as follows:

1. Participant must be interested and willing to produce two small units during Workshop.
2. Vocational supervisors from each high school district will be allowed one vocational educator "per" high school.
3. One vocational supervisor from each high school district may be selected by each district as a participant.
4. One junior high school vocational educator from each high school

district as a participant.

5. Los Rios vocational supervisors will be able to select six vocational education participants from each campus.
6. Other participating community colleges may select three vocational educators from their campus.
7. One vocational supervisor from each community college may be selected as a participant of the Workshop.

In an effort to interest participants the Director and Instructional Assistant sent brochures and letters to each Community College District in Northern California. Personal visits were made to Community College Districts and High School Districts within a fifty mile radius of Sacramento to describe the program to the appropriate administrator in that district. Follow-up letters were sent to all involved districts as well. The Sacramento County Schools Office also sent copies of the brochure to all teachers in Sacramento County.

A copy of this letter is included as Appendix A of this report.

IV. Final Statement

The major objectives of this project were to assist the selected vocational educators to develop instructional materials based upon the behavioral objectives of each course in order to individualize their instruction and to develop resource materials as a guide to other educators.

In order to accomplish the major objectives of the project, the following activities were set up for the Workshop:

1. Develop an analysis of the content of the unit(s) chosen for study.
2. Identify the behavioral objectives for the unit.
3. Select the techniques and media to be adopted to provide the best learning situation for the students in order to accomplish the behavioral objectives.
4. Produce the media to be used as instructional tools for the unit(s).
5. Define mastery concept for the unit(s) by developing pre-and post-testing materials to measure the competency level achieved by each student.
6. Have unit(s) completed, and typed copy handed in to Group Consultant or Project Director in order for all of the units that are completed by Workshop participants to be reproduced and copies sent to participating school and participant.
7. Test unit produced in the classroom, and send evaluation of unit to Project Director by December 15, 1972.
8. Participants are to accept leadership roll in own school in assisting other staff members to develop individualized instructional materials.

At the close of each of the workshops, a questionnaire was completed by

each participant. Copies of these instruments and the statistical analysis of each evaluation have been included in this report as Appendix C.

The first six activities were accomplished by 56 vocational educators when they submitted one or two completed packages at the close of the final workshop. It is understood that eight other participants are still planning to complete and use their packages next fall. A set of the completed packages is being submitted with this report.

The last two activities will be accomplished during the fall semester of 1972 and reported in the supplemental evaluation report.

Following are summaries of the individual workshop evaluations:

Workshop No. 1

The vocational educators participating in the opening workshop reacted as follows:

When questioned about how they had learned about the Workshop Series, 29 had learned about it from the brochure, and/or 19 from their administrators, and/or 14 from fellow teachers. As the various school administrators had distributed the brochures, it is obvious that the participants had the support of their administration as they participated.

They also reported that as a result of Rita Johnson's presentation they had a much more positive attitude about self-instruction. The reaction to the group consultants was very positive about the assistance they were given during the second day of the first workshop. The general feeling was expressed that they would have liked to have had more personal help from Dr. Johnson and wished they had had more time and opportunity to review packages in their own field.

Evaluation of Workshop No. 2

The participants felt that the presentation by Bill Furniss did help them see new application for media use in programmed instruction. The reaction to the presentation of the specialized media instruction was very positive to the use of graphics and asked for more time to be given to this area, positive for photography and audio taping, but rather negative to video taping. The later reaction was no doubt connected to the cost of the equipment - not currently available for use in most districts represented.

All six of the groups reacted quite positively to the assistance given them in media preparation by their group consultants. By the close of the workshop, forty-one participants had had an opportunity to do the original testing of their first packet.

Evaluation of Workshop No. 3

Most of the participants attending the third lecture given by Dr. Robert Samples reacted rather strongly to his type of presentation. He raised many excellent questions, but his indirect method was foreign to many of the vocational educators. It is to be noted that the reaction varied greatly from group to group which was no doubt due to the interpretation of Friday evening's presentation by the individual group consultants. However, almost 60% of those responding did indicate they wanted to change their package after hearing Dr. Samples.

The reaction was quite positive to the "vendor display," and also to the help given in photography - for those who needed it. Many of the participants needed no help with this particular reproduction skill.

Although the two people handling the audio taping presentation and individual assistance were busy the entire day, not many people were able to spend as much time as they felt they needed with this media. More time and staff should be planned for a future workshop.

By the close of the 3rd meeting, 25 participants had completed and tested their packet and 5 had completed two packets.

Final Evaluation

At the close of the fourth workshop the vocational educators who were participating responded as follows:

1. Over 80% felt that individualized programmed instruction is a valuable instructional method, does in truth individualize instruction, is very useful as a method of instruction, and is important to them to know how to use.

   Over 70% responded that individualized programmed instruction is innovative, creative, progressive, good, sound, fair to students, effective, and systematic.

   Some concern was expressed in its use related to cost, and to the possibility of losing warmth if the process should become too mechanical.

2. In rating the various aspects of the workshops the participants rated the group consultants as "most helpful" in assisting them to prepare their packages, found the speakers, textbooks, and facilities excellent. The reaction to vendor displays, special consultants, and the materials provided varied according to individual participants and their individual needs and past experience.

3. It is interesting to note that although the time of the workshop did not permit the development of TV or video tapes or of 8 or 16 mm film, many participants for the first time did make use of the reel-to-reel tape recorder, the cassette tape recorder, slides, pictures, programmed booklets, and transparencies as they prepared their individualized packages.

Summary

General comments about the workshops indicated a sincere appreciation on the part of the participants for the opportunity to work together to learn about and develop individualized instructional packages. Many have expressed a desire for a second series of workshops.

Plans have been made for a follow-up evaluation after the vocational instructors have had an opportunity to actually use their packages during the fall semester, 1972. A supplemental report on this evaluation will be filed in late December, 1972.

APPENDIX A

LOS RIOS COMMUNITY COLLEGE DISTRICT

Sacramento City College 1916 — American River College 1955 — Cosumnes River College 1970 — El Dorado College 1972

Walter Coultas
District Superintendent

George A. Rice, Jr.
Asst. Supt. Business

January 1972

Dear

The Los Rios Community College District is proposing a workshop entitled, "How to Individualize Instruction Through Program Development", for one hundred instructors and supervisors of vocational education. Concomitant with this will be a workshop for one hundred academic instructors and supervisors.

The program will extend over four weekends, with a nationally known guest lecturer on Friday evenings and then a Saturday workshop. These workshops will provide consultants for specialty areas as well as the guest lecturer. It will be possible to obtain two units of credit through Sacramento State College.

The objectives of the workshop are:

(a) Develop an analysis of the content of the unit chosen for study.

(b) Identify the behavioral objectives for the unit.

(c) Select the techniques and media to be adopted to provide the best learning situation for the students in order to accomplish the behavioral objectives.

(d) Produce the media to be used as instructional tools for the unit.

(e) Define mastery concept for the unit by developing pre-and post-testing materials to measure the competency level achieved by each student.

Each school district will be invited to send participants who are willing to actively help in the preparation of a unit and then

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test this unit in his classroom, and who will be willing to aid other instructors in the development and testing of other units. The vocational areas that participants will be drawn from are: Agriculture, Distribution, Health, Home Economics, Office, Technical, and Trade and Industry. Each individual school will be limited to one vocational and one academic participant, plus selected members from the intermediate grades and supervisorial staffs. Guide lines for selection will be included.

The tentative program:

February 25-26, 1972

Friday, 6:30 - 9:00 p.m., American River College

"Developing Individualized Instructional Materials"
Dr. Rita Johnson, National Laboratory for Higher Education.

Saturday

8:00 - 10:00 a.m., "How to Write a Program", Dr. Rita Johnson.

10:00 - 10:15 a.m., Coffee break

10:15 - 12:00 a.m., Work Session With Specialty Consultants.

12:00 - 1:00 p.m., Lunch (no host)

1:00 - 3:00 p.m., Work Sessions With Specialty Consultants.

March 3 - 4, 1972

Friday, 6:30 - 9:00 p.m., Sacramento City College

"Will Media Make Instructors Obsolete?"
William Furniss, Director of Telecommunications Systems, Orange Coast District.

Saturday Workshop

Vendor Participation: development of media with specialty consultants and media consultants.

Graphics, Photography and Taping.

March 17 - 18, 1972

Friday, 6:30 - 9:00 p.m., Cosumnes River College

"Curriculum Planning for Change"
Dr. Robert Samples, Boulder, Colorado, Earth Science Educational Project.

Saturday Workshop

Sessions with specialty area consultants.

April 7 - 8, 1972

Friday, 6:30 - 9:00 p.m., American River College

"Mastery of Learning and Audio-Tutorial Techniques"
Dr. Robert Hurst, Associate Professor, Purdue University.

Saturday Workshop

Workshop and evaluation of projects by participants.

A grant for the workshop for the 100 vocational educators has been applied for and will cover the cost of the national experts and the consultants. Each participant will pay a $10 registration fee to cover the cost of the instructional supplies which will be used during the workshop. Two units of credit are available through Sacramento State College for $12. The Friday evening lectures are open to all interested persons at no charge.

The Los Rios District will contribute $2,000 toward the cost of the program. It is hoped that your district will be interested in sending participants and will find it possible to make a small financial contribution ($50 to $200) to help cover the cost of the academic consultants.

A form is enclosed for you to complete and return by February 11, 1972, to:

Mr. Louis Heinrich, Project Director
American River College
Los Rios Community College District
4700 College Oak Drive
Sacramento, Ca. 95841

Very truly yours,

Louis G. Heinrich

Louis G. Heinrich
Project Director

APPENDIX B

CRITERIA FOR SELECTION OF PARTICIPANTS

VOCATIONAL EDUCATION WORKSHOP PARTICIPANTS

1. Participant must be interested and willing to produce two small units during workshop.

2. Vocational supervisors from each high school district will be allowed one vocational educator "per" high school.

3. One vocational supervisor from each high school district may be selected by each district as a participant.

4. One junior high school vocational educator from each high school district may be selected by each district as a participant.

5. Los Rios vocational supervisors will be able to select six vocational education participants from each campus.

6. Other participating community colleges may select three vocational educators from their campus.

7. One vocational supervisor from each community college may be selected as a participant of the workshop.

GROUP #1 - AUTOMOTIVE, MECHANICS, ELECTRONICS, WELDING (color code - ORANGE)

AUTHOR	INSTRUCTIONAL PACKET
Howard Bowington	"Learning How To Correctly Light An Oxy-Acetylene Torch"
Stuart Churchon	"Electrical Power"
Alexander Breyer	"How To Identify The Parts Of An Outside Micrometer Caliper"
	"How To Read An Outside Micrometer Caliper"
Donna [illegible]e	"How To Inspect And Gap A Spark Plug"
John Craggs	"Electron Theory"
Patrick Flanagan	"Electricity - The Left-Hand Rule"
Stuart Hardy	"Micrometer - Identification And Reading"
Ernie Hooper	"How To Recognize The Four Most Common Gas-Welding Defects"
Fred Howe	"Hook-up And Reading Of An Ignition Dwell Meter"
Myron Nadolski	"Voltage And Current In A Series Circuit"
Nicholas Neuberger	"How To Properly And Safely Turn On The Malsbury Steam Cleaner"
	"How To Properly And Safely Turn Off The Malsbury Steam Cleaner"
Kenneth Noel	"Compression Testing"
Clyde Santens	"How To Read The Thread Dial Indicator"

GROUP #2 - HEALTH, NURSING, PHYSIOLOGY, PHYSICAL EDUCATION (color code - BLUE)

AUTHOR	INSTRUCTIONAL PACKET
Harriette Bell	"Preparation Of Tablet Medication"
	"Preparation Of Liquid Medication"
Barbara Chance	"Learning About Drugs"
Leahmon Henry	"Administration Of An Oral Medication"

Margaret Powers	"Wheel And Deal - Sections I, 2, 3"
Frances Ratcliff	"Medication Cards"
	"Charting Of Medication"
Richard Saffhelm	"Blood Typing"
Louetta Thomson	"Application Of A Sphygmomanometer"

GROUP #3 - ENGLISH, DRAMA, STUDENT PERSONNEL, ELEMENTARY (color code - GREEN)

AUTHOR	INSTRUCTIONAL PACKET
Marian Belcher	"Problems Encountered By Black College Students"
Robert Mahaffy	"Sailing - Basic Terminology"
	"Sailing - Ropes And Lines"
Eileen Mills	"Writing A Resume For Job Application"
	"Writing A Letter For Job Application"

GROUP #4 - ENGINEERING, DRAFTING, MATH, INDUSTRIAL ARTS (color code - PURPLE)

AUTHOR	INSTRUCTIONAL PACKET
Robert Biel	"How To Read A Micrometer"
	"How To Figure Revolutions Per Minute For Tool Bits"
Gene Elkins	"Reading A Printer's pH Scale"
Kenneth Roots	"How To Find Thevenin's Equivalent Circuit"

GROUP #5 - HOME ECONOMICS, ADMINISTRATION, NUTRITION (color code - LIGHT GREEN)

AUTHOR	INSTRUCTIONAL PACKET
Betty DeGabriello	"How To Make A Pocket In Pants Or Skirt"
Marvin Dolfendahl	"How To Read A Beginner's Slide Rule"
Loretta Contarski	"Alterations/Wardrobe"
Beulah Hooper	"Sewing On A Button"
Carol Matich	"Hidden Fats In Our Food"
Yvonne Vanoni	"What's My Line"
	"More About Lines And You"

GROUP #6 - BIOLOGY, SPECIAL EDUCATION, PHYSIOLOGY (color code - BLACK)

AUTHOR	INSTRUCTIONAL PACKET
George Blechman	"Meiotis - Production Of Sex Cells"
Alyce Wiedler	"Structure Of The DNA Molecule"
	"Replication Of The DNA Molecule"
Dorothy Clingrich	"Venereal Disease"
Patricia Colchi	"Common Chemical Elements, pH, Basic Organic Chemistry"
	"Microscope Parts - Function And Use
Barbara Kuehner	"Muscles Of The Trunk"
	"Physiology Of Muscle Contraction"
Richard Seward	"Individualized Unit For Road Signs"

GROUP #7 - DATA PROCESSING, BUSINESS, OFFICE EQUIPMENT, MANAGEMENT, TYPING (color code - LAVENDER)

AUTHOR	INSTRUCTIONAL PACKET
Phil Brown	"Storage Of Information In Computers"
Michael Catuzzo	"Setting Elite Margins"
Dorothy Dohr	"Changing Percents To Decimals Or Fractions"
	"How To Handle Outgoing Mail"
Wayne Edwards	"How To Use A Teletype"
Betty Jacquier	"Addressing Business Envelopes"
	"The Eight Basic Parts Of The Business Letter"
Ellen Pate	"Vertical And Horizontal Centering"
Dee Sorenson	"Classifying Accounts"
Robert Mikesell	"Typing A Block Style Letter With Block Paragraphs And Mixed Punctuation"
	"Typing A Modified Block Style Letter With Block Paragraphs And Mixed Punctuation"
James Trimboli	"Preparing For A Job Application And Interview"

GROUP #3 - POLITICAL SCIENCE, POLICE SCIENCE, SOCIOLOGY (color code - YELLOW)

AUTHOR	INSTRUCTIONAL PACKET
Robert Chilimidos	"Auto Theft Investigation"
Perry Edwards	"Line Printer - Principles, Types, Operation"
Joel Greenfield	"Testing Suspected Materials To Determine The Presence Of Marijuana With Valtox"
	"Interpersonal Communication"

GROUP #9 - AERONAUTICS (color code - SALMON)

AUTHOR	INSTRUCTIONAL PACKET
John Cates	"Installing A Cotter Pin Correctly"
	"Dimensional Report Of A Fixed Pitch Propeller"
Warren Hillwig	"Magneto Control Systems"
Walter Kuhn	"Helicoil Inserts"
Ronald Madeen	"Bend Allowance"
Dennis Noble	"Forces Acting On An Airfoil"
Robert Rhoads	"The World Of Reamers And Reaming"

APPENDIX C

Week 1

1. Subject matter area _____ Group number _____

2. Years of teaching experience _____

3. Years of experience with program writing and multi-media _____

4. How did you first learn of the workshop?

   a. Brochure _____
   b. Administration _____
   c. Fellow teacher _____
   d. News media, radio _____
   e. Other _____

5. Has your attitude toward self-instruction shifted as a result of Dr. Rita Johnson's presentation?

-2	-1	0	1	2
Much more negative	Slightly more negative	Same	Slightly more positive	Much more positive

6. Did you find Dr. Johnson helpful in working on your own program during the workshop?

0	1	2
Not helpful	Slightly helpful	Very helpful

7. Did your consultant help change your attitude toward self-instruction?

-2	-1	0	1	2
Much more negative	Slightly more negative	Same	Slightly more positive	Much more positive

8. Did you find your consultant helpful in working on your own program during the workshop?

0	1	2
Not helpful	Slightly helpful	Very helpful

9. Are there any suggestions you might have to make the workshop more effective next time?

   a. Workshop leaders

   b. Speakers

   c. Schedule

Summary of 1st meeting

Groups	1	2	4	5	7	9		
No. in Group	10	6	11	9	7	7		
Question No.								
2	7	8	8	7	10	5		
								Ave. Point Value
5	15(1.5)	7(1.1)	10(.09)	15(1.6)	7(1.0)	9(1.2)	63	6.49
6	14(1.4)	7(1.1)	9(.08)	10.5(1.2)	3(.04)	6(.08)	49.5	3.90
7	7(.07)	7.5(1.25)	11(1.0)	11(1.2)	3(.04)	8(1.1)	47.5	4.66
8	15(1.5)	11(1.8)	17(1.5)	15.5(1.7)	9.5(1.3)	13(1.8)	81	9.60

Los Rios Community College District

WORKSHOP IN INDIVIDUALIZED INSTRUCTION
Evaluation Week 2

1. Subject matter area _____ Group #
2. Teaching experience _____ year/month.

3 Did Bill Furniss' presentation Friday evening help you see new applications for media use in programmed instruction?

0	1	2
Not helpful	Slightly helpful	Very helpful

4 Will the information on media use be helpful to your packet or potential packets?

a. Photography - Bill Papke 0 1 2

b Audio Taping - Bill Rase 0 1 2

c Graphics - Don Goff 0 1 2

d Video Taping Don Buchnell 0 1 2

Was your program consultant able to provide the help you nee to complete the assigned work for this week?

0 1 2

5 Testing of Package (check all appropriate items)

Learned a great deal about my package.
Learned little about my package.
Learned nothing about my package.

Tested my package on people in my own people in my own group.
Tested my package on people in other groups.
Did not test my package.

6 Check those areas where more time would be advantageous.

Audio Taping
Video Taping
Photography
Graphics

_____Work with area consultants
_____Testing of program
_____Group summary of progress

7 OBJECTIVES - Good or bad.

Summary of 2nd meeting

Groups	1	2	4	5	7	9	
No. in Group	10	9	9	6	9	7	
Question No.							Average Weighted Value
3	1.9	1.5	.7	1.0	.6	2.0	1.25
4 a	1.8	1.5	.5	1.5	1.0	1.6	1.31
b	1.4	.9	.9	1.1	1.4	1.6	1.20
c	1.5	1.5	.8	1.6	1.4	2.0	1.46
d	1.3	1.2	.5	.8	1.0	1.0	.96
5	1.9	1.9	1.3	1.6	1.4	2.0	1.68
6 a	1.9	.9	1.3	1.9	1.5	1.5	1.50
							# of Participants
b	9	7	7	5	8	5	41
	1	2	2	1	1	1	8
7 Audio	5	2	1	2	2	3	15
Video	6	3	4	2	4	1	20
Photo	6	1	1	2	1	5	16
Graphics	2	5	4	3	3	4	21
Consult.	1	2	3	1	5	0	12
Testing	3	2	1	4	3	1	14
Summary	0	1	1	2	0	0	4

Los Rios Community College District

WORKSHOP IN INDIVIDUALIZED INSTRUCTION
Evaluation Week 3

Subject matter area_____ Group #_____
Teaching experience_____ year/month.

1. Did Dr. Samples cause you to question your present relationship with your students? Yes_____ No_____

2. Did you understand the concept of instruction that Dr. Samples presented? Not at all___ Somewhat___ Complete___

3. Did Dr. Samples' presentations cause you to want to change your second package? Yes___ No___

4. Did you need help with your audio taping? Yes___ No.___
Did you get the help you needed? Yes___ No___

5. Did you need help with the duplication of your packet? Yes___ No___
Did you get the help you needed? Yes___ No___

6. Did you need help with photography work for your package?
Yes___ No___
Did you get the help you needed? Yes___ No___

7. Was the vendor display a useful activity for this workshop?
Yes___ No___
Explain.

8. How are you coming -

a. Package #1
___ Objectives completed
___ Pretest
___ Introduction
___ Body of project, (script, tape, etc.,)

bb. Package #2
___ Objectives completed
___ Pretest
___ Post test
___ Introduction
___ Body of project, (script, tape, etc.,)

Summary of 3rd meeting

Groups		1	2	4	5	7	9	Ave. %
No. in Group		6	6	3	3	6	5	
Question No.								
1	Yes	34	17	100	67	34	0	42
	No	50	83	0	33	50	100	52
2	Yes	17	17	0	67	34	0	22
	?	66	66	67	33	34	80	57
	No	17	17	33	0	34	20	20
3	Yes	17	83	67	67	0	0	39
	No	83	0	33	33	100	100	58
4	Yes	17	0	0	0	17	0	5
	No	66	83	100	67	67	100	80
	Yes	34	0	0	33	34	40	23
	No	17	17	33	0	34	0	16
5	Yes	50	83	67	33	50	20	50
	No	34	17	33	67	0	80	38
	Yes	50	66	33	67	17	60	48
	No	0	0	0	0	17	0	2.8
6	Yes	34	34	33	33	17	20	28
	No	66	50	67	67	67	80	66
	Yes	34	34	0	67	17	60	35
	No	17	17	33	0	0	0	11
7	Yes	100	83	100	67	67	80	82
	No	0	17	0	0	34	0	8

Week 4

PLEASE COMPLETE AND HAND IN

TO YOUR GROUP CONSULTANT

The following questions are designed to gather information regarding the activities in developing programmed instructional materials.

This information is required by the grant, and is to assist in evaluating the present program and help future program developers. Please answer all of the questions and be as fair and honest as you possibly can. We greatly appreciate your participation and any constructive suggestions you may be able to make.

Thank you.

Louis G. Heinrich George Moore

1. Subject matter area_____ Group Number _____

2. Years of teaching experience _____

3. Please circle a number value for each of the continums listed below which describes some aspect of individualized instructional programs. Make sure you circle one number for each pair of words.

Individualized programmed instruction is:

(1) Innovative	1	2	3	4	5	6	7	Non-innovative
(2) Creative	1	2	3	4	5	6	7	Non-creative
(3) Unique	1	2	3	4	5	6	7	Commonplace
(4) Progressive	1	2	3	4	5	6	7	Non-progressive
(5) Valuable	1	2	3	4	5	6	7	Worthless
(6) Economical	1	2	3	4	5	6	7	Expensive
(7) Individualized	1	2	3	4	5	6	7	Non-individualized
(8) Useful	1	2	3	4	5	6	7	Valueless
(9) Sound	1	2	3	4	5	6	7	Unsound
(10) Fair	1	2	3	4	5	6	7	Unfair
(11) Human	1	2	3	4	5	6	7	Non-human
(12) Good	1	2	3	4	5	6	7	Bad
(13) Important	1	2	3	4	5	6	7	Non-important
(14) Effective	1	2	3	4	5	6	7	Ineffective
(15) Flexible	1	2	3	4	5	6	7	Inflexible
(16) Open	1	2	3	4	5	6	7	One-sided
(17) Warm	1	2	3	4	5	6	7	Cold
(18) Non-mechanical	1	2	3	4	5	6	7	Mechanical

Individualized programmed instruction is: (cont.)

(19) Systematic	1	2	3	4	5	6	7	Disorganized
(20) Stimulating	1	2	3	4	5	6	7	Dull
(21) Exciting	1	2	3	4	5	6	7	Calm
(22) Original	1	2	3	4	5	6	7	Stereotyped
(23) Attractive	1	2	3	4	5	6	7	Unimpressive

4. **Forms of media used in program development:**

Please check the following forms of media which you used during the development of your program and those you have used before you came to the workshop.

	Used before workshop	Used during workshop
(1) Reel to reel tape recorder	____	____
(2) Cassette tape recorder	____	____
(3) Video tape recorder	____	____
(4) 35 mm pictures (black and white or color)	____	____
(5) 35 mm slides	____	____
(6) Polaroid pictures	____	____
(7) Regular or super 8 mm film	____	____
(8) 16 mm film	____	____
(9) T.V. tape	____	____
(10) Stereo slides	____	____
(11) Pictures (from magazines, etc.)	____	____
(12) Programmed booklets	____	____
(13) Transparencies	____	____
(14) Other	____	____

5. Was workshop useful to you?

Yes - explain answer

No - explain answer

6. What are your plans for making use of the package you developed and when?

7. Have you made any plans to exchange or use other packages (units) produced by other participants? If you have, with whom?

8. If you are not planning to use your package, why not?

9. Will you be able to develop instructional packages without further help?

10. If you need help, what kind of assistance will you require in order to develop instructional packages for your class?

11. How do you plan to aid other instructors in your school in developing instructional packages for their classes?

12. If you will not be able to aid other instructors in your school, why not?

13. What help would you need in order to help other instructors develop programs?

14. How do you plan to evaluate your package in the classroom?

15. Rate the following elements of the workshop:

(1) Speakers

Excellent 1 2 3 4 5 6 7 Poor

Comments:

(2) Group Consultants

Helpful 1 2 3 4 5 6 7 Not helpful

Comments:

(3) Vendor Display

Helpful 1 2 3 4 5 6 7 Not helpful

Comments:

(4) Special Consultants- Photography, graphics, etc.

Helpful 1 2 3 4 5 6 7 Not helpful

Comments:

(5) Provided Materials- Film, tape, duplication

Helpful 1 2 3 4 5 6 7 Not helpful

Comments:

(6) Textbook

Helpful 1 2 3 4 5 6 7 Not helpful

Comments:

(7) Overall Planning of Workshop

Good 1 2 3 4 5 6 7 Poor

Comments:

(8) Physical Facilities-

(a) Locations

Good 1 2 3 4 5 6 7 Poor

Comments:

(b) Accomodations

Good 1 2 3 4 5 6 7 Poor

Comments:

Summary of 4th meeting

Groups		1	2	4	5	7	9		
No. in Group		10	8	8	8	10	5		
Question No.								Total	%
3	1	26	17	23	18	17	11	112	76.19
	2	26	19	17	20	17	10	109	74.14
	3	16	9	10	15	13	9	72	48.97
	4	26	18	19	15	21	10	109	74.14
	5	27	22	21	20	26	12	128	87.07
	6	12	- 2	- 2	- 3	- 3	6	8	5.44
	7	28	21	18	24	18	11	120	81.63
	8	27	20	18	20	27	13	125	85.03
	9	22	16	18	20	23	11	110	74.82
	10	23	17	19	19	21	7	106	72.10
	11	19	16	14	18	22	7	96	65.30
	12	25	16	18	22	22	10	113	76.87
	13	26	18	19	22	23	13	121	82.31
	14	27	15	16	20	19	12	109	74.14
	15	19	16	17	22	13	12	99	67.34
	16	21	13	19	16	10	8	87	59.18
	17	10	13	12	13	- 4	7	51	34.69
	18	- 1	6	5	9	2	1	22	14.96
	19	22	18	16	21	26	10	113	76.87
	20	26	18	14	15	15	9	97	65.98
	21	19	12	11	9	16	7	74	50.34
	22	20	13	19	11	10	8	81	55.10
	23	22	19	18	12	19	10	100	68.02

Summary of 4th meeting continued

Groups		1	2	4	5	7	9	Total No. Participants
Question No.								
4	1	1		1	3		1	6
	2	1				2	2	5
	3							0
	4				2		1	3
	5	1			3		2	6
	6	3			1			4
	7							0
	8							0
	9							0
	10							0
	11	2	1	1	2	1	2	9
	12	3	2	4	2	4	2	17
	13	1	1		1	1	2	6
	14	1			1	2	1	5

Groups		1	2	4	5	7	9	Total Earned Points
No. in Groups		10	8	8	8	10	5	
Total No. Possible Points		30	24	24	24	30	15	
Question No.								
15	1	12	19	10	19	9	6	75
	2	26	23	17	19	17	13	115
	3	22	7	5	- 4	7	3	40
	4	21	17	0	2	13	4	57
	5	5	15	7	- 1	0	4	30
	6	9	12	16	18	15	4	74
	7	14	21	15	18	17	6	91
	8a	24	19	13	19	23	6	104
	8b	22	18	13	17	20	7	97

AMERICAN RIVER COLLEGE

SUPPLEMENT TO FINAL REPORT -- FINAL STATEMENT

Title: How to Individualize Instruction Through Program Development

Project No. 34-67371-EF 054-72

OE Project No. OEG - 0-70-1955 (725)

Project Director: Louis Heinrich

December 15, 1972

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The following is the supplemental report to the final statement on evaluation of project 34-67371-EF 054-72, "How to Individualize Instruction Through Program Development." The workshop was offered during the Spring semester through the Los Rios Community College District, with college credit from Sacramento State College and partial funding from California State Department of Education - Vocational Education Section. The evaluation of the workshop by the participants and consultants was carried out after each session, completed with the final session, and included in the final report that was submitted June 30, 1972.

In November, 1972, questionnaires were sent to workshop participants, their students and their supervisors, in order to sample their reactions and accomplishments of the objectives outlined in IV Final Statement, page 6 of the Final Report. The questionnaires and their final results are found in Appendix A of this supplement.

The project director and instructional staff of the workshop expressed the following regarding the overall workshop:

1. Estimated over 80% of the workshop participants completed at least one instructional package that contained the elements outlined in Johnson and Johnson's text, "Assuring Learning With Self-Instructional Packages."
2. An oversight on part of the staff is noted in that there was no pretest to determine how many of the participants had ever written programmed instruction. From personal observations and the reactions of the participants to programming, it appeared that no more than ten members of the workshop had previously written programmed instruction.
3. Students expressed a very strong liking for courses taught by the programmed instructional method. They know what to expect, are getting individualized help and are learning more than they had expected to when they entered the class.
4. The supervisors also saw a great change in attitude, attempts to make improvements in the curriculum, and a better understanding of change in a majority of the participants.

Participants expressed the feeling that the greatest obstacles to bringing about changes in teaching methods and curriculum was a lack of time, money and encouragment from administration. It would be recommended that administrators seek more positive methods for release time and finances and give greater recognition and encouragement to teachers who are attempting to make improvements.

STUDENT REACTIONNAIRE SUMMARY:

The survey of both the college and high school students by the "Student Reactionnaire" (pp ii and v) showed that they recognized program instruction as a significant portion of their curriculum. There was also a considerable indication of individualized instruction by individual tutoring and discussion groups. The high school student does not have as many discussion groups as was found among college classes, and individual tutoring seemed to play a more significant roll in the high school than in the colleges. Since programmed instruction is comparitively new it is interesting to note that it was almost as significant in the curriculums as the traditional modes of instruction.

In Questions #2, 4, 6, 8 and 10, (pp iii and vi) were designed to indicate positive feelings towards the programmed mode of instruction. Both the high school and college students strongly indicated positive feelings towards their individual courses. High school students indicated a strong desire to have all their courses taught by programmed and individual instruction, while college students were evenly split on this point.

Questions #1, 3, 7, and 13, (pp iii and vi) were an attempt to identify student's negative reactions to programmed instruction. In all cases both high school and college students strongly disagreed with the negative questions, indicating again their positive attitude to programmed instruction.

Both high school and college students responses to Questions #5, 9, 11, and 15, (pp iii and vi) indicated they know what was expected of them and they were receiving individualized help, which are two major goals or objectives of programmed instruction.

INSTRUCTOR REACTIONNAIRE SUMMARY:

Instructors who responded to their portion of the survey, (pp vii—xvi) indicated that a large majority are using specific objectives in their courses. They are also post testing over these specific objectives or are planning to do so in the near future.

The writing of packages has been carried out by 13 of the college and by 9 of the high school instructors. Many others indicated plans to do so.

At this time 47% of the college instructors have developed alternate learning patterns and 30% of the high school instructors have done so. This allows the student alternate patterns of individualized instruction.

Teachers response to the aid which the workshop provided them in developing instructional programs, Questions #7 - 14, (pp ix and xiv) are all positive. The high school teacher indicates support for the instructional programming is not present in his local district, while college people are getting more support from their administrations than they received in previous programs.

The respondents strongly felt that their fellow faculty members would benefit from workshops similar to this one.

The survey also revealed that the instructors themselves had a more positive attitudinal change towards systems approach and self instruction than they had at the beginning of the workshop.

Instructor comments from questions on the reactionnaire (pp x and xv) indicated that the most useful facets of the workshop were:

a. help received in writing behavioral objectives and packages from consultants.

b. the opportunity to exchange ideas with other instructors.

c. the address given by Dr. Rita Johnson and the help she gave them.

In reference to the question concerning obstacles that the instructors were confronted with (pp xi and xvi) the majority indicated little support by their administration through additional funds, released time or recognition for attempting to change teaching techniques. Many instructors felt that the reluctance of other teachers to make changes was also a major obstacle. They were attempting to overcome this by using a "soft-sell" approach and with repeated exposure of their program to other teachers. They also

felt that students were apprehensive when they first encountered the new technique, and that they required time to learn how the new program operated. After the students became acquainted with the program, the survey showed a great deal of enthusiasm for the new techniques of instruction.

SUPERVISOR REACTIONNAIRE SUMMARY:

The Supervisor's Reactionnaire (pp xvii--xx) revealed that some districts have had sufficient interest in programmed instruction to enable them to conduct a workshop. The Grant Joint Union High School District conducted a workshop the fall of 1972 using instructors who had been participants in the Los Rios Workshop. Applications have been made by another district to various agencies for grants in order to develop new projects utilizing program instruction, and new programs are being developed for different courses which they hope will be completed by 1973.

The workshop participant's immediate supervisors indicated that there was a change in teaching technique as well as in the curriculum. The effort expended by the teachers was felt to be worth while for more than 50% of the instructors who participated. This has apparently caused an increase in support material in the participants' subject area because of efforts and interest exhibited by the participants.

The supervisors also felt that instructors exhibited a greater understanding of recent developments in programmed instruction. This point was also verified by student reaction to programmed instruction.

In only a few areas have the supervisors not seen any changes in attitude, curriculum or even an understanding of new instructional programming techniques. The greatest amount of change and the largest number of new programs completed and in the process of being developed was reported by the supervisors of Business Education and Nursing.

RECOMMENDATIONS:

1. More workshops are needed to overcome the reluctance of supervisors, administrators and instructors to make changes.
2. The workshops should concentrate on the writing of programmed instruction pacages, behavioral objectives, and should not attempt to instruct in the use of audio-visual techniques. The incorporation of these techniques would more profitably be introduced in a secondary workshop concentrating on their incorporation.
3. Attempt should be made to reduce the length of time over which the workshop would be conducted - possibly using a two or three day weekend.
4. The aid of trained consultants is paramount in guiding the writing of successful programs. The use of skilled personnel in this capacity is directly proportional to the success of the participants.
5. Funds should be allocated for a follow-up one or two day worksho some six months to a year after the main workshop, for the purpose of reinforcement.
6. Production facilities - typewriter, dittos, duplicating facilities, work area, simple graphics, etc. - should be in ample supply on days workshop is in progress.
7. Future programs should be held at one location rather than changing locations for each session.
8. More time should be given to the writing of objectives than was allocated in this project.

APPENDIX A

TO SUPPLEMENTAL REPORT OF THE FINAL STATEMENT

Dear Student:

We are conducting a survey of student reaction to certain courses as they are taught in the Greater Sacramento Area. We are trying to find out what methods of teaching are most effective and most preferred by students.

Your teacher has shown an interest in improving the effectiveness of this course and you have been selected to participate in this survey. Your frank and candid response to each question will be appreciated. Please use the back of the form to add any additional comments you wish to make.

Please complete the Reactionnaire and return it immediately to the person who gave it to you, unsigned. We ask only a few minutes of your time.

Thank you for your help.

Student Reactionnaire

The title of this course is_____

It is offered at_____
Name of your school

Check the activities required of you in this course. Then estimate the approximate percentage of your time spent in each of the required activities. Some of the activities may not apply to your course. If that is the case, DO NOT CHECK those activities. Check only the activities which are provided for you in this course. If some of the activities provided are not in the list, add them in the space(s) provided.

ACTIVITY	CHECK ACTIVITY	APPROXIMATE PERCENT OF MY TIME SPENT IN EACH CHECKED ACTIVITY
1. Group lectures	129 / 5	____
2. Discussion groups	39 / 10	____
3. Individual tutoring	139 / 4	____
4. Reading (books, articles, etc.)	148 / 3	____
5. Laboratory activity	157 / 2	____
6. Field work activity	43 / 9	____
7. Programmed instruction (audio-tutorial or other look-listen-read-respond methods	93 / 8	____
8. Moving pictures and/or television	105 / 7	____
9. Demonstrations	194 / 1	____
10. Writing (term papers, projects, etc.)	109 / 6	____
Other (please specify)		
_____	____	____
_____	____	____
TOTAL Must add to 100%		____

LEDGER: Raw Score / Rank

Below are statements of opinion about this course. You may agree or disagree with each statement in varying degrees. For each statement, place an "X" in the column which best expresses the strength of your agreement or disagreement. Please answer every item with a single "X". You may use the back of the form to express any other ideas or feelings you have about the course.

STATEMENT	Strongly agree	Agree	* Neutral	Disagree	Strongly disagree
1. This course requires too much busy work.	2 / 1%	22 / 12%	72	113 / 62%	44 / 24%
2. This course is very interesting.	71 / 23%	125 / 60%	45	9 / 4%	5 / 2%
3. This course is too structured.	1 / 1%	21 / 13%	87	109 / 70%	25 / 16%
4. This course ranks among the best I have ever taken.	64 / 33%	99 / 51%	57	28 / 14%	4 / 2%
5. I always know what is expected of me in this course.	74 / 34%	117 / 54%	39	20 / 9%	4 / 2%
6. I wish all my courses were taught this way.	45 / 28%	70 / 45%	96	34 / 22%	8 / 5%
7. I hope I never have to take another course in this subject area.	7 / 3%	8 / 3%	27	95 / 41%	[illegible] / 52%
8. I've learned more than I expected to in this course.	49 / 26%	117 / 63%	69	17 / 9%	3 / 2%
9. I get the individual help I feel I need in this course.	67 / 33%	124 / 61%	51	9 / 4%	5 / 2%
10. I intend to take another course in this subject area.	71 / 36%	91 / 46%	55	29 / 15%	8 / 4%
11. I wish the course provided more guidance.	20 / 14%	32 / 22%	104	76 / 52%	19 / 13%
12. I would describe this course as "learning by doing."	112 / 48%	105 / 45%	24	8 / 4%	6 / 3%
13. I would prefer more lectures.	6 / 3%	14 / 7%	48	86 / 43%	95 / 47%
14. I wish more time were given for special projects.	31 / 21%	43 / 29%	105	50 / 34%	23 / 16%
15. I would like more individual attention.	15 / 12%	17 / 13%	123	74 / 57%	23 / 18%

*This column not included in the percentages due to neutral attitude.
Ledger: ☐ = Raw Score / %-age responding to items.

Dear Student:

We are conducting a survey of student reaction to certain courses as they are taught in the Greater Sacramento Area. We are trying to find out what methods of teaching are most effective and most preferred by students.

Your teacher has shown an interest in improving the effectiveness of this course and you have been selected to participate in this survey. Your frank and candid response to each question will be appreciated. Please use the back of the form to add any additional comments you wish to make.

Please complete the Reactionnaire and return it immediately to the person who gave it to you, unsigned. We ask only a few minutes of your time.

Thank you for your help.

College Student Final Tally

Student Reactionnaire

The title of this course is_____

It is offered at_____
Name of your school

Check the activities required of you in this course. Then estimate the approximate percentage of your time spent in each of the required activities. Some of the activities may not apply to your course. If that is the case, DO NOT CHECK those activities. Check only the activities which are provided for you in this course. If some of the activities provided are not in the list, add them in the space(s) provided.

ACTIVITY	CHECK ACTIVITY	APPROXIMATE PERCENT OF MY TIME SPENT IN EACH CHECKED ACTIVITY
1. Group lectures	~~202~~ / 2	____
2. Discussion groups	~~112~~ / 7	____
3. Individual tutoring	~~108~~ / 9	____
4. Reading (books, articles, etc.)	~~243~~ / 1	____
5. Laboratory activity	~~165~~ / 3	____
6. Field work activity	~~65~~ / 10	____
7. Programmed instruction (audio-tutorial or other look-listen-read-respond methods	~~157~~ / 4	____
8. Moving pictures and/or television	~~111~~ / 8	____
9. Demonstrations	~~117~~ / 6	____
10. Writing (term papers, projects, etc.)	~~156~~ / 5	____
Other (please specify)		
_____	____	____
_____	____	____
TOTAL Must add to 100%		____

Ledger: Raw Score / Rank

College Student Final Tally

Below are statements of opinion about this course. You may agree or disagree with each statement in varying degrees. For each statement, place an "X" in the column which best expresses the strength of your agreement or disagreement. Please answer every item with a single "X". You may use the back of the form to express any other ideas or feelings you have about the course.

STATEMENT	Strongly agree	Agree	* Neutral	Disagree	Strongly disagree
1. This course requires too much busy work.	17 / 7%	39 / 15%	87 .	1139 / 55%	58 / 23%
2. This course is very interesting.	117 / 42%	144 / 52%	60	15 / 5%	3 / 1%
3. This course is too structured.	12 / 5%	37 / 15%	101	153 / 65%	35 / 15%
4. This course ranks among the best I have ever taken.	63 / 26%	126 / 52%	97	48 / 20%	8 / 3%
5. I always know what is expected of me in this course.	87 / 27%	171 / 54%	47	54 / 17%	7 / 2%
6. I wish all my courses were taught this way.	40 / 17%	74 / 33%	107	79 / 35%	33 / 15%
7. I hope I never have to take another course in this subject area.	10 / 3%	30 / 11%	57	140 / 50%	101 / 36%
8. I've learned more than I expected to in this course.	69 / 28%	135 / 56%	91	35 / 14%	4 / 2%
9. I get the individual help I feel I need in this course.	82 / 31%	148 / 56%	73	25 / 9%	11 / 4%
10. I intend to take another course in this subject area.	47 / 20%	137 / 57%	102	43 / 18%	13 / 5%
11. I wish the course provided more guidance.	18 / 8%	52 / 23%	116	122 / 55%	30 / 14%
12. I would describe this course as "learning by doing."	121 / 42%	152 / 51%	53	24 / 7%	1 / ---
13. I would prefer more lectures.	13 / 5%	51 / 21%	91	118 / 50%	56 / 24%
14. I wish more time were given for special projects.	15 / 7%	41 / 20%	139	113 / 56%	32 / 16%
15. I would like more individual attention.	21 / 11%	60 / 30%	145	94 / 48%	21 / 11%

* This column not included in percentages due to neutral attitude

Ledger: ⧸ = Raw Score / %-age responding to item

High School Instructor Final Tally

Dear Instructor:

We are conducting a survey of the participants in the workshop, "Individualized Instruction Through Program Development," held during the Spring of 1972. Will you please take a few minutes of your time to fill out the enclosed form in order for the evaluation of the workshop to be concluded.

Please return this survey by December 8, 1972.

Thank you for your help.

High School Instructor Final Tally

Instructor Reactionnaire:

The title of this course is_____

Below are statements concerning activities that involve the development and use of individualized instruction. Will you please mark each item under the column which best expresses the extent of your program development, or expresses the strength of your agreement or disagreement with a statement concerning outcomes.

STATEMENT	Presently Doing	Plan To Do	Not Going To Be
1. Give my students specific objectives for course unit.	9 / 90%	1 / 10%	
2. Pre-test on the stated objectives for each unit.	5 / 50%	3 / 30%	2 / 20%
3. Post-test on the stated objectives for each unit.	9 / 90%	1 / 10%	
4. Provide opportunities for alternate strategies and retesting until minimum standard of performance on each objective is reached.	3 / 30%	5 / 50%	2 / 20%
5. Use the package approach to allow for individual learning rates.	5 / 50%	5 / 50%	
6. Collect package revision data.	3 / 30%	5 / 50%	2 / 20%

Ledger: ☐ = Raw Score / %-age responding to item.

High School Instructor Final Tally

Please check the extent to which you agree or disagree with the following statements about the "Individualized Instruction" workshop.

STATEMENT	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
7. Has helped me with my teaching.	5 / 50%	4 / 40%	1 / 10%		
8. Has been worth the time, effort and money involved.	4 / 40%	5 / 50%		1 / 10%	
9. Has really influenced my teaching methods.	4 / 40%	4 / 40%	2 / 20%		
10. Has led to significant changes in my classroom curriculum.	3 / 30%	4 / 40%	2 / 20%	1 / 10%	
11. Has contributed to improved support for teaching at my school.		2 / 20%	7 / 80%		
12. Has wasted a lot of my time.		1 / 10%		4 / 40%	5 / 50%
13. Has helped me to understand recent developments in programmed instruction.	4 / 40%	4 / 40%	1 / 10%	1 / 10%	
14. Did allow enough time for me to develop ideas of my own.	4 / 40%	3 / 30%	1 / 10%	2 / 20%	

Ledger: ☒ = Raw Score / %-age responding to item

High School Instructor Final Tally

15. Do you plan to package your entire course? Yes 4 No 6

a. When do you plan to begin? _____

b. When do you expect to be finished? _____

c. What subject areas and grade levels will be produced? _____

_____

_____

16. What single facet of the workshop did you find most helpful?

17. What facet of the workshop was irrelevant or detrimental?

18. What proportion of the faculty at your own institution do you feel could benefit from a workshop of this type?

5-20%	20-24%	40-60%	60-80%	80-90%	90-100%
1	1	4	1	1	2

19. How many instructors at your institution do you anticipate will adopt portions of the techniques you learned or materials you prepared?

20. How has your attitude toward the systems approach shifted as a result of this workshop? (Circle the appropriate number on the scale.)

4	5		1	
2	1	0	-1	-2
Much more positive	Slightly more positive	Same	Slightly more negative	Much more negative

21. Has your attitude towards self-instruction shifted as a result of this workshop? (Circle the appropriate number on the scale.)

3	6	1		
2	1	0	-1	-2
Much more positive	Slightly more positive	Same	Slightly more negative	Much more negative

22. What would you suggest adding to future workshops of this type?

23. In your judgement, what are the major obstacles one is likely to face in restructuring established courses, reorganizing a curriculum, or redesigning teaching strategies in your school and district? Give examples if you can from your own experience.

24. Which of the above obstacles have you encountered and what steps have you found successful in overcoming them?

College Instrucor Final Tally

Dear Instructor:

We are conducting a survey of the participants in the workshop, "Individualized Instruction Through Program Development," held during the Spring of 1972. Will you please take a few minutes of your time to fill out the enclosed form in order for the evaluation of the workshop to be concluded.

Please return this survey by December 8, 1972.

Thank you for your help.

College Instructor Final Tally

Instructor Reactionnaire:

The title of this course is_____

Below are statements concerning activities that involve the development and use of individualized instruction. Will you please mark each item under the column which best expresses the extent of your program development, or expresses the strength of your agreement or disagreement with a statement concerning outcomes.

STATEMENT	Presently Doing	Plan To Do	Not Going To Do
1. Give my students specific objectives for course unit.	13 / 100%		
2. Pre-test on the stated objectives for each unit.	3 / 21%	6 / 43%	5 / 36%
3. Post-test on the stated objectives for each unit.	10 / 72%	2 / 14%	2 / 14%
4. Provide opportunities for alternate strategies and retesting until minimum standard of performance on each objective is reached.	7 / 47%	2 / 13%	6 / 40%
5. Use the package approach to allow for individual learning rates.	99 / 70%	2 / 15%	2 / 15%
6. Collect package revision data.	8 / 61%	4 / 31%	1 / 8%

Ledger: ☒ Raw Score / %-age responding to item

College Instructor Final Tally

Please check the extent to which you agree or disagree with the following statements about the "Individualized Instruction" workshop.

STATEMENT	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
7. Has helped me with my teaching.	6 / 43%	7 / 50%	1 / 7%		
8. Has been worth the time, effort and money involved.	9 / 65%	4 / 28%		1 / 7%	
9. Has really influenced my teaching methods.	3 / 21%	10 / 72%		1 / 7%	
10. Has led to significant changes in my classroom curriculum.	3 / 21%	9 / 65%	2 / 14%		
11. Has contributed to improved support for teaching at my school.	2 / 14%	5 / 36%	6 / 43%	1 / 7%	
12. Has wasted a lot of my time.			2 / 14%	5 / 36%	7 / 50%
13. Has helped me to understand recent developments in programmed instruction.	3 / 20%	10 / 67%	2 / 13%		
14. Did allow enough time for me to develop ideas of my own.	1 / 8%	11 / 76%	1 / 8%		1 / 8%

Ledger: ☒ = Raw Score / %-age responding to item

College Instructor Final Tally

15. Do you plan to package your entire course? Yes 6 No 8

    a. When do you plan to begin? _____

    b. When do you expect to be finished? _____

    c. What subject areas and grade levels will be produced? _____

16. What single facet of the workshop did you find most helpful?

17. What facet of the workshop was irrelevant or detrimental?

18. What proportion of the faculty at your own institution do you feel could benefit from a workshop of this type?

5-20%	20-24%	40-60%	60-80%	80-90%	90-100%
	1	4	3	1	3

19. How many instructors at your institution do you anticipate will adopt portions of the techniques you learned or materials you prepared?

20. How has your attitude toward the systems approach shifted as a result of this workshop? (Circle the appropriate number on the scale.)

5	6	2		
2	1	0	-1	-2
Much more positive	Slightly more positive	Same	Slightly more negative	Much more negative

21. Has your attitude towards self-instruction shifted as a result of this workshop? (Circle the appropriate number on the scale.)

6		6		
2	1	0	-1	-2
Much more positive	Slightly more positive	Same	Slightly more negative	Much more negative

22. What would you suggest adding to future workshops of this type?

23. In your judgement, what are the major obstacles one is likely to face in restructuring established courses, reorganizing a curriculum, or redesigning teaching strategies in your school and district? Give examples if you can from your own experience.

24. Which of the above obstacles have you encountered and what steps have you found successful in overcoming them?

High School Supervisors Final Tally

Supervisor:

Please check the appropriate box according to your observations about instructors under your supervision who participated in the workshop, "Individualized Instruction Through Program Development," during the Spring of 1972. Please return this survey by December 8, 1972.

	Strong agreement	Agree	No opinion	Disagree	Strongly disagree
1. Have observed a positive change in their teaching methods.	1 / 10%	7 / 70%	1 / 10%	1 / 10%	
2. Effort and money which participants spent was worthwhile.	3 / 30%	5 / 50%	1 / 10%	1 / 10%	
3. Have observed significant changes in their curriculum.	2 / 20%	5 / 50%	1 / 10%	2 / 20%	
4. Have observed improvement of support material in their subject area.	1 / 11%	5 / 55%	2 / 23%	1 / 11%	
5. Effort expended to develop support material was worthwhile.	3 / 33%	4 / 44%	2 / 23%		
6. Have observed a greater understanding of recent developments in programmed instruction.	6 / 60%	3 / 30%	1 / 10%		
7. Time has been too limited for participants to develop ideas of their own.	2 / 20%	2 / 20%	3 / 30%	3 / 30%	

Ledger: ☒ Raw Score / %-age responding to item

High School Supervisors Final Tally

As a result of the workshop, has your department, school, or district made any:

	None	Planning	In Prpgress	Completed
A. Changes in curriculum	6	1	2	1
B. Changes in facilities	2	6	2	
C. Changes in nature of support	1	5	1	1
D. Changes in level of support	1	1	4	1
E. Development of training session or workshops to facilitate programed instruction	6		1	1

Please respond by giving specific examples to any of the above which you have checked.

In progress:

Completed:

Thank you for any information that you have given.

Very truly yours,

George L. Moore

College Supervisors Final Tally

Supervisor:

Please check the appropriate box according to your observations about instructors under your supervision who participated in the workshop, "Individualized Instruction Through Program Development," during the Spring of 1972. Please return this survey by December 8, 1972.

	Strong agreement	Agree	No opinion	Disagree	Strongly disagree
1. Have observed a positive change in their teaching methods.		15 / 62%	3 / 13%	6 / 25%	
2. Effort and money which participants spent was worthwhile.	5 / 21%	15 / 62%	3 / 13%		1 / 4%
3. Have observed significant changes in their curriculum.	2 / 8%	9 / 37%	6 / 25%	7 / 29%	
4. Have observed improvement of support material in their subject area.	3 / 13%	12 / 50%	4 / 17%	5 / 21%	
5. Effort expended to develop support material was worthwhile.	5 / 21%	13 / 52%	4 / 17%	1 / 4%	1 / 4%
6. Have observed a greater understanding of recent developments in programmed instruction.	6 / 25%	7 / 29%	5 / 21%	6 / 25%	
7. Time has been too limited for participants to develop ideas of their own.	6 / 25%	10 / 42%		8 / 33%	

Ledger: ☒ = Raw Score / %-age responding to item.

College Supervisors Final Tally

As a result of the workshop, has your department, school, or district made any:

	None	Planning	In Progress	Completed
A. Changes in curriculum	9	9	7	2
B. Changes in facilities	10	4	4	1
C. Changes in nature of support	15	2	1	1
D. Changes in level of support	15	2	1	1
E. Development of training session or workshops to facilitate programed instruction	17	1	2	1

Please respond by giving specific examples to any of the above which you have checked.

In progress:

Completed:

Thank you for any information that you have given.

Very truly yours,

George L. Moore

HOW TO INDIVIDUALIZE INSTRUCTION THROUGH PROGRAM DEVELOPMENT

Addendum to Final Report

This addendum is intended to supplement the Final Report prepared as part of EPDA Project Number 34-67371-EFD54-72. In as much as 28 academic subject matter teachers participated as observers. Their costs were covered by their own registration fee as well as extensive financial participation from community service funds from the Los Rios Community College District, American River College, Cosumnes River College and Sacramento City College and San Juan Unified, Yuba College and Sacramento County Schools.

Twenty-one of the twenty-eight academically oriented participants registered for credit through Sacramento State College. Twenty-five of this group completed packets and will be trying them out in the fall.

The academic instructors were also organized into small consultation groups allied as closely as possible to their major subject interests:

Group #3	English
Group #6	Biology
Group #8	Humanities

Selected individuals from these groups were included in the Vocational-Education portion of this project due to the type of student they work with most frequently.

In addition to summaries of the individual workshop evaluations of the Vocational-Educational groups the following applies primarily to the above mentioned academic groups.

Workshop No. 1

Almost all of the participants had received information on the workshop directly by a copy of the brochure or through administrative channels.

Dr. Rita Johnson created and/or reaffirmed a very positive attitude towards self-instruction and particularly programmed

self-instruction.

There was also expressed a very strong positive opinion towards the utilization of their individual group consultants where their ideas could constructively be criticized by an individual knowledgeable in programmed individualized instruction but not necessarily in their subject matter area. This gave the participants an immediate student-like opinion of their own program's strengths and weaknesses.

Workshop No. 2

The academic participants also felt that Bill Furniss' presentation had some applications for their programs but not without serious production limitations. Their reactions to the specialized media presentations were positive.

The Biology oriented group was the one most interested in getting more help in Audio taping, Photography and Graphics.

It was interesting to note though that better than half of those responding have worked in at least two of the specialized media areas covered and were already fairly well acquainted with the fundamental techniques of these fields.

Workshop No. 3

The academically oriented instructors, especially those in the Humanities, seemed to relate to Robert Samples presentation more positively than did the vocational instructors.

The vendor display was well received and much useful information gained by all those who were interested in media utilization.

Workshop No. 4 and Final Evaluation

Question No. 3 in the final evaluation is a rated series of expressive terms. No attempt to summarize this question will be made here but it

deserves a few moments of time as there are a few differences between subject matter areas.

The major media forms used in individual package preparation followed those found in audio tutorial teaching throughout the country at this time: reel-to-reel and cassette tape recording, 35 mm slides, copying of pictures from various sources, and programmed booklets. This indicated some degree of knowledge of the present methods employed in A.T. techniques.

The overall evaluation found in question no. 15 indicated in general the participants were very happy with the speakers, vendor displays and instructional materials provided for packet production. The areas of Speciality Consultants, texts used, workshop organization and accommodations came in rated for favorable comments while area consultants and the problem of travel to different campuses rated slightly less favorably. No area received a negative rating in the final evaluation.

Summary

A follow-up study of classroom utilization by participants is planned for the early part of the 1972-73 school year following which another report will be compiled.

Overall, the Directors of the Workshop felt great strides were made in introducing the educational community to nationally known individuals in programmed instruction, the writing of programmed materials, and media utilization. There also is considerable evidence expressed by individual instuctors and school administrators that efforts are being made to continue the development of instructional packets. The Grant Union High School District has formalized plans for an in-service program utilizing people that participated from their District in the Workshop. Sacramento City

College has a program that will continue the development of instructional packages this fall. College of the Siskiyous at Weed, California was developing an in-service program utilizing instructors who had also participated in the workshop conducted by the Los Rios Community College District through Vocational Education, EPDA funding.

Summmary of 1st meeting*

Groups	3	6	8	
No. in Group	7	7	3	
Question No.				
2	5	9	4	
				Average Point Value
5	5 (.07)	11 (1.5)	3 (1.0)	19 (2.57)
6	6 1/2 (.92)	12 (1.7)	6 (2.0)	24 1/2 (4.62)
7	2 (.02)	10 (.01)	1 (.03)	13 (0.06)
8	11 (1.5)	14 (2.0)	2 (.06)	27 (3.56)

Summary of 2nd meeting*

Groups	3	6	8
No. in Group	7	7	4
Question No.			
3	1.1	.7	1.7
4a	1.4	1.6	1.7
b	1.1	.7	1.3
c	1.2	.7	1.0
d	.8	.7	1.0
5	1.6	1.8	1.0
6a	1.3	1.6	1.3
b	-	7	4
	-	0	1

Summary of 2nd meeting continued

		3	6	8
7	Audio	0	4	2
	Video	1	3	1
	Photo	2	4	1
	Graphics	2	5	2
	Consultant	2	2	0
	Testing	2	3	1
	Summary	1	0	0

Summary of 3rd meeting*

Groups	3	6	8	
No. in Group	7	6	2	
Question No.				Average Percent
1 Yes	42	50	100	64
No	42	50	0	31
2 Yes	42	17	50	36
?	42	50	50	47
No	-	17	-	6
3 Yes	-	-	50	17
No	100	83	50	78
4 Yes	14	33	-	16
No	86	50	100	79
Yes	57	50	50	52
No	-	-	-	-
5 Yes	57	50	50	52
No	42	50	50	47
Yes	57	33	-	[illegible]
No	14	17	-	[illegible]
6 Yes	28	33	100	54
No	71	50	-	40
Yes	14	50	100	51
No	14	17	-	10
7 Yes	57	83	100	80
No	42	17	-	20

Final Summary and Week 4*

Groups		3	6	8		
No. in Group		10	7	3		
Question No.					Total	Percent
3	1	16	14	3	33	55
	2	18	17	5	40	66.7
	3	7	15	2	24	40
	4	19	16	5	40	66.7
	5	19	18	5	42	70
	6	- 1	- 4	7	2	3.3
	7	22	19	6	47	78.3
	8	24	18	6	48	80
	9	21	16	3	40	66.7
	10	19	16	6	41	68.3
	11	16	12	2	30	50
	12	22	13	5	40	66.7
	13	22	14	1	37	61.7
	14	20	17	3	40	66.7
	15	16	9	6	31	51.7
	16	16	5	5	26	43.3
	17	10	2	1	13	21.6
	18	-	- 3	-1	- 4	- 6.7
	19	20	19	6	45	75
	20	20	13	0	33	55
	21	20	11	2	33	55
	22	21	12	3	36	60
	23	19	13	2	34	56.7
					Total No. Participants	
4	1	4	2	1	7	
	2	5	2	1	8	
	3	1	1	-	2	
	4	1	1	-	2	
	5	3	3	-	6	
	6	-	-	-	-	
	7	-	-	-	-	
	8	1	-	1	2	
	9	1	1	-	2	
	10	-	1	-	1	
	11	4	2		6	
	12	2	2	2	6	
	13	1	1	1	3	
	14	1	-	-	1	

Final Summary and Week 4 continued

Groups		3	6	8	
No. in Group		10	7	3	
Total points possible		30	21	9	60
Question No.					
15	1	9	8	3	20
	2	26	15	4	45
	3	6	10	3	19
	4	15	14	4	33
	5	12	6	0	18
	6	17	15	5	37
	7	15	8	7	30
	8a	17	19	5	41
	b	19	10	4	33

*Original copies of each week's evaluations are found in Appendix C of the main report.

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